ABSTRACTS OF CARDIOLOGY

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De Motu Cordis. By WILLIAM HARVEY, translated from the original Latin by KENNETH J. FRANKLIN. Pp. xii and 209. Price 17s. 6d. Blackwell Scientific Publications: Oxford.

This new translation of *De Motu Cordis* by Professor Franklin, prepared at the invitation of the Royal College of Physicians, was published in 1957 as a contribution to the commemoration of the tercentenary of Harvey's death. The aim of the translator was "to get nearer to him in thought by attempting to discover more precisely what he intended to convey by every latin sentence that he included in the great work of 1628" and all students of the circulation will be grateful to Professor Franklin for this work. His new translations of the rest of Harvey's published works on the circulation will be eagerly anticipated.

Graham Hayward

Classics in Arterial Hypertension. By ARTHUR RUSKIN, M.D., F.A.C.P. Pp. xxv and 358. 72s. Blackwell Scientific Publications: Oxford.

This history of hypertension is divided into two parts: the first, on methods of measurement of blood pressure, ranges from the papers of Stephen Hales (1733) to Korotkov (1905), and the second, on the significance of hypertension, from Aurelianus (400) to Goldblatt (1934). The selection of original papers and excerpts includes several that are not generally recognized in historical surveys of this disease and the text is illustrated with portraits and many original figures. The publication of this attractive work in the American Lecture Series is most welcome at the present time when so much attention is being paid to the disease.

Graham Hayward

Pediatric Cardiology. By ALEXANDER NADAS, M.D., F.A.A.P. Pp. xxii and 587. 84s. London: W. B. Saunders Co. Ltd.

With the exception of arteriosclerotic heart disease this book by Dr. Nadas includes most of the cardiovascular diseases that may be encountered in adult patients. The natural history of these diseases extends in most cases over a much longer period of time than the first one or two decades and it is difficult for a paediatrician to give a balanced account of many types of heart disease in children when this is so much influenced by what happens after they have outgrown the children's clinic. For this reason the sections on course and prognosis in this book are brief and less satisfactory than the clinical accounts of the cardiovascular diseases of children which are excellent. The emphasis is on clinical management but the author has made full use of modern physiological methods of investigation to increase the accuracy of clinical diagnosis and has produced a handbook that will be of great interest not only to the paediatrician and

general physician, for whom it was written, but also to the cardiologist. One criticism of the production of the book is the poor quality of reproduction of the cardiograms many of which are indecipherable and several mounted upside down.

Graham Hayward

Surgery of the Open Heart. By CH. DUBOST and PH. BLONDEAU. Pp. 320. Price 3,000 fr. Paris: Masson et Cie.

This monograph surveys the various methods that are at present available for the surgery of the open heart. The first part deals with operations under hypothermia and the second the use of an extra-corporeal circulation. A great part of the book is devoted to technical descriptions of the various types of apparatus which are in use, but the authors also discuss physiological principles and the difficulties encountered in both these methods of open heart surgery. The actual surgery of the heart itself and the more clinical aspects of the subject are discussed very briefly and the chief value of this book is in providing a review of present established and experimental technical methods.

Graham Hayward

Pulmonary Function in Left Ventricular Failure, Including Cardiac Asthma. R. S. COSBY, E. C. STOWELL, W. R. HARTWIG, and M. MAYO. *Circulation (N.Y.)*, **15**, 492-501, April, 1957.

An extensive study of pulmonary function in 8 patients with hypertensive heart disease in congestive failure and cardiac asthma was carried out at the University of South California School of Medicine and the County Hospital, Los Angeles, the findings being compared with those in 14 patients with mitral stenosis and congestive failure and 16 patients with emphysema and right heart failure. The patients were selected because of severe dyspnoea, irrespective of the presence of a "wheeze", and were bedridden at the time of examination. The procedure included measurement of lung volume, and analysis of blood and gas distribution in the lung, as well as measurement of diffusing capacity by the technique of Riley *et al.* (*J. appl. Physiol.*, 1951, **4**, 102). In some patients arterial oxygen saturation following positive-pressure breathing exercise and inhalation of 100% oxygen was estimated. The expiratory air-flow pattern was analysed by recording a pneumotachogram and simultaneously determining the oxygen and carbon dioxide tensions in the expired gas, an infrared analyser and a Beckman mass spectrometer being used.

The lung lesion in patients with hypertensive congestive heart failure was found to resemble that in emphysematous patients, but to differ from that in patients with cardiac failure from rheumatic heart disease, there being a definite obstructive type of ventilatory defect with

reduced vital capacity and maximum breathing capacity in hypertensive congestive heart failure. In hypertensive patients, again as in those with emphysema, the peripheral blood showed increased tension of carbon dioxide in contrast to the lowered carbon dioxide tension in patients with rheumatic heart disease, although in the latter group there were greater abnormalities of diffusion than in the hypertensive group. The emphysematous patients differed from those with hypertensive heart failure in showing a much greater transfer gradient and percentage venous admixture. *P. Hugh-Jones*

Hyperaldosteronism in Heart-disease. H. P. WOLFF, K. R. KOCZOREK, and E. BUCHBORN. *Lancet*, 2, 63-66, 1957.

The urinary excretion of aldosterone and sodium in 40 patients with various forms of heart failure and 30 healthy subjects have been meticulously studied. The values for urinary excretion of sodium and aldosterone in healthy subjects with and without a restricted dietary intake of 60 to 80 mEq. of sodium daily served as control readings for similar estimations in 8 patients with left ventricular failure, 7 with right-sided cardiac failure, 21 with pulmonary and systemic congestion, and 4 patients examined within a week after myocardial infarction, all of whom were studied before treatment and again after digitalization, salt restriction, and administration of diuretics.

In the patients with left-sided failure the excretion of aldosterone and of sodium was usually normal, whereas most patients with right-sided failure showed increased aldosterone activity and considerable sodium retention. During treatment with a salt-restricted diet, digitalis, and diuretics the response was variable. When diuresis was induced by mercurial diuretics or carbonic anhydrase inhibitors the excretion of aldosterone increased considerably within one to three days.

D. Geraint James

The Significance of Lymphatic Circulation in Certain Internal Organs. I. RUSNJAK. *Ter. Arkh.*, 29, 5-16, No. 6, June, 1957.

The flow of lymph in the internal organs, which is not dependent on movement as in the extremities, is in some cases very large; for example, the daily lymph flow through the kidneys is equal to the volume of urine excreted, and that through the liver is nearly as great. The author reports the results of animal studies in which the efferent lymphatics of the heart, lungs, alimentary tract, liver, and kidneys were occluded experimentally.

These showed that lymph from the two sides of the heart drains into two separate lymph vessels and eventually enters the circulation via the thoracic duct or the right lymphatic duct. Electrocardiographic (EC) recordings from such hearts showed departures from normality which were not found in control animals subjected to thoracotomy but without ligation of the lymphatics. These changes were of three types: (1) the S-T segment was depressed and the T waves flattened; (2) the appearances were those of myocardial infarction; (3) the recordings were characteristic of an acute and severe cardiac anoxæmia. Histologically, interstitial œdema of the myocardium and dilatation of lymph capillaries

was found post mortem with, in 3 cases, areas of focal necrosis of heart muscle. While ligation of the lymph vessels or of the coronary sinus alone was in many cases not fatal and the EC tended eventually to become normal, the combined occlusion of coronary sinus and lymphatics was inevitably fatal in from 3 hours to 6 days; in these latter cases hæmorrhagic necrosis of the heart muscle was found.

In the case of the lungs and liver, in which the venous pressure is much lower and the lymph has a much higher protein content, ligation of the efferent lymphatics produced œdema in the same way as in the heart. This œdema was found to be much more severe in the presence of pulmonary hypertension due to mitral disease, as shown by experiments on 8 dogs in which mitral incompetence (6 cases) or stenosis (2 cases) had previously been produced by operation. Simultaneous ligation of the lymphatics and of the common bile duct caused still greater œdema.

In the same way ligation of the renal efferent lymphatics produced œdema, but if this was accompanied by simultaneous ligation of the ureter there ensued serious necrotic changes.

It is evident that the study of the circulation of lymph in the internal organs in normal and in pathological conditions is of great importance—much greater than has hitherto been supposed—and that further investigations will throw light on many conditions which are at present obscure.

[This is a most stimulating and thought-provoking paper, to which an abstract can do but little justice.]

L. Firman-Edwards

Diagnostic and Prognostic Significance of Serum Transaminase Levels in Coronary Occlusive Disease. A. A. KATTUS, R. WATANABE, and C. SEMENSON. *Circulation* (N. Y.), 15, 502-511, 1957.

The authors discuss their findings in 255 patients aged 37 to 85 years (all except 3 being males) who were admitted because of chest pain strongly suggestive of myocardial infarction. These findings confirm that a rise in the serum glutamic oxalacetic transaminase (SGO-T) level, starting some hours after the onset of pain, reaching a peak in 24 to 48 hours, and then gradually falling to normal over the following 3 or 4 days, is of diagnostic importance in myocardial infarction, and that the extent of the rise may be of prognostic significance. Of the 255 patients, 111 were considered to have proven infarction from the history, the clinical evidence, and the changes in the electrocardiogram; in all these 111 cases the SGO-T levels, as estimated serially over the first 3 to 6 days after the onset of pain, were raised. In 144 cases the electrocardiogram was not diagnostic of infarction; in 63 of these there was a rise in the SGO-T level compatible with infarction. At necropsy in 7 cases in this last group infarction was found.

[A number of recent papers have presented similar findings. Estimation of the glutamic oxalacetic transaminase liberated from the damaged heart muscle seems to be of value in the differentiation of infarction from angina and of cardiac from pulmonary infarction.]

P. Hugh-Jones

Circulatory Studies in Hypertensive Patients at Rest and during Exercise. With a Note on the Starling Relationship in the Left Ventricle in Essential Hypertension.
S. H. TAYLOR, K. W. DONALD, and J. M. BISHOP.
Clin. Sci., 16, 351, 1957.

In the study reported here from the Queen Elizabeth Hospital, Birmingham, the authors have investigated the haemodynamics of 20 patients with essential hypertension by means of cardiac catheterization. The patients were divided into two groups according to their degree of exercise tolerance and, under mild sedation, the values for various haemodynamic factors were determined, first at rest and then during the fourth or fifth minute of exercise which was approaching the limit of tolerance. No patient showed any clinical evidence of right or left ventricular failure at the time of the study, and none was receiving hypotensive drugs. Control values were those obtained in a previous study of 16 normal subjects under similar conditions.

The less disabled patients did not differ significantly from normal, and during exercise they showed a normal response in regard to cardiac output, except that in the majority of cases there was a significant rise in pulmonary wedge pressure. In the second group, however, that is the more disabled patients, the oxygen uptake was higher than normal and the cardiac output lower at rest. They showed an abnormal rise in pulmonary wedge pressure on exercise and in some this pressure was high even at rest. Exercise produced a subnormal response in cardiac output in all cases in this group.

The relationship of the left ventricular filling pressure to ventricular work in this series of patients is compared with that found by Starling in the isolated dog heart.

J. Warwick Buckler

Hypertension Due to Unilateral Renal Disease—with a Report on a Functional Test Helpful in Diagnosis.
T. B. CONNOR, M. BERTHRONG, W. C. THOMAS, and J. E. HOWARD. *Bull. Johns Hopk. Hosp.*, 100, 241–276, 1957.

In this paper the authors describe their investigation of a possible method of distinguishing those cases of hypertension that are associated with unilateral renal disease and in which nephrectomy might be expected to cure the hypertension. In principle, the method consisted in collecting simultaneous samples of urine from each kidney by ureteric catheterization and measuring their volume and sodium concentration.

In 31 patients with essential hypertension and normal kidney function the specimens of urine from the two kidneys were virtually identical in volume and sodium concentration. In 11 patients with hypertension and presumed bilateral kidney disease ureteric catheterization frequently showed marked differences in the volume of urine excreted by the two sides, but the sodium concentration in the specimen from the kidney secreting the greater volume of urine was always either equal to or less than that in the specimen from the other kidney. In a further group of 4 patients with severe hypertension, 2 of whom had arteriographic evidence of unilateral renal disease, one kidney consistently excreted less urine with a lower sodium concentration than the other. In each

case nephrectomy improved the hypertension, one of the excised kidneys showing only hypertrophy of the juxtaglomerular apparatus, but the other 3 containing areas of "ischæmic" tubular atrophy. In another group of 4 patients with hypertension there was pyelographic evidence of unilateral kidney disease, but in none of these was the hypertension relieved by nephrectomy. Ureteric catheterization studies in these cases had revealed differences in the volume and sodium concentration of the urine from the two sides, but in no case did the lesser sodium concentration correspond with the smaller volume of urine. In 15 cases with similar findings nephrectomy was not carried out.

The course of hypertension was also observed in 10 cases following the removal of a completely non-functioning kidney. In 7 of these the rapid onset of severe, progressive hypertension, or an abrupt increase in previously mild hypertension, were outstanding clinical features. Retrograde pyelography showed a normal collecting system on the affected side in 7 cases, this finding being considered to indicate a renal vascular accident as the cause of the loss of function. Of the 10 patients, 8 derived marked benefit from nephrectomy, the follow-up period ranging from one to 4½ years.

The histological findings in kidneys removed at operation in cases of hypertension are discussed and the authors advance the view that the essential feature of hypertension of renal origin is "ischæmic" atrophy of significant numbers of convoluted tubules which still contain apparently functional tubular cells, as opposed to the thyroid-like tubules with extreme atrophy of the epithelium which are seen in advanced cases of pyelonephritis.

[This is a most stimulating paper which will repay reading in the original.]

H. F. Reichenfeld

The Significance of Nonbacterial Thrombotic Endocarditis: an Autopsy and Clinical Study of 78 Cases. R. A. MACDONALD and S. L. ROBBINS. *Ann. intern. Med.*, 46, 255, 1957.

In the opinion of the authors not enough importance is attached to the finding of non-bacterial thrombotic endocarditis at necropsy. Often referred to as terminal endocarditis, it is considered by many to be a terminal condition and without clinical significance. In support of their view the authors describe 78 cases of the condition found during the course of 18,486 consecutive post-mortem examinations over 22 years at the City Hospital, Boston, Massachusetts. Of the 78 cases, 40 were in men and 38 in women ranging in age from 18 to 90 years, 69 of the patients being over 49. The chief underlying diseases in these cases were cancer, heart failure, and vascular thromboses. The mitral valve was most commonly affected, and the condition had to be distinguished from the other common types of endocarditis—bacterial and rheumatic. Important for histological differentiation is the fibrocollagenous degeneration of the valve with a relative lack of cellular infiltration of the valve beneath the thrombus. An important clinical point that emerges from this study is that in 11 of the 78 cases there was evidence of multiple peripheral emboli which presumably came from the diseased valve.

G. S. Crockett

A Study of the Cardiovascular Changes during Cooling and Rewarming in Human Subjects Undergoing Total Circulatory Occlusion. E. BLAIR, R. R. AUSTIN, S. G. BLOUNT, and H. SWAN. *J. thorac. Surg.*, 33, 707-718, 1957.

The authors of this paper from the University of Colorado School of Medicine, Denver, claim that it is the first to report direct measurements of arterial and central venous blood pressures made during cooling, total circulatory occlusion, and rewarming in patients undergoing open cardiectomy during hypothermia. Adequate data were obtained on 23 patients ranging in age from 3 to 35 years, all of whom were suffering from congenital disease of the heart. After induction of anaesthesia with ether the patients were cooled to 26° to 31° C. by immersion in cold water; rewarming was aided by diathermy.

During cooling, blood-pressure sounds became inaudible between 31° and 37° C., and later the pulse became impalpable. At the moment of disappearance of the Koratkov sounds the intra-arterial blood pressure was found to be adequate, being in all cases above 73/51 mm. Hg, and in one case as high as 155/103 mm. Hg. However, the blood pressure continued to fall for some time after the attainment of the lowest temperatures, reaching a mean value of 60 mm. Hg between 26° and 29° C. The pulse pressure was not greatly reduced and pulse rates slowed to an average value of 60 per minute. Central venous pressure was raised during hypothermia. During total circulatory occlusion the blood pressure did not fall to zero but, after one to two minutes, was usually stabilised above 20 mm. Hg. The cause of this "cadaveric" pressure was not apparent. The heart rate lay between 20 and 84 beats per minute, but was clearly influenced both by coronary perfusion of neostigmine and by the surgeon's manipulations. The central venous pressure was further elevated during the occlusion. On the release of occlusion 6 patients showed an overshoot of blood pressure, 2 with an accompanying fall in pulse rate. Within a few minutes conditions had returned to pre-occlusion levels, and the phenomenon of overshoot did not appear to be related to the duration of the occlusion. In the rewarming phase the pulse and blood pressure reappeared at lower temperatures than those at which they had disappeared, and at a temperature of 34° C. the circulatory signs had returned to within normal limits in all the patients studied.

The authors conclude that the cardiovascular reflex mechanisms regulating the circulation are intact in the range of hypothermia studied (26° to 31° C.). The clinical disappearance of pulse and Koratkov sounds is attributed to constriction of the larger arteries and not to any change in the pulse pressure, which appears to remain normal. J. F. Nunn

A Simple Test for Interatrial Communication. G. DE J. LEE and T. M. D. GIMLETTE. *Brit. med. J.*, 1, 1278, 1957.

The authors, working at St. Thomas's Hospital, London, have developed a simple and safe test for atrial septal defect that depends upon altering pressures in the atria separately, thereby changing the blood flow across the septal defect. Alterations in arterial oxygen saturation

are then detected by the ear oximeter. The method requires continuous recording of arterial oxygen saturation, intrathoracic pressure (via an intra-oesophageal catheter), and brachial arterial pressure with the patient in the sitting posture. The patient carries out Valsalva's manoeuvre at rest and after exercise. During Valsalva's manoeuvre the intrathoracic pressure rises and the net right atrial pressure (right atrial pressure minus intrathoracic pressure) falls. After Valsalva's manoeuvre the net right atrial pressure rises higher than its resting level, inducing a right-to-left shunt for a few seconds which is detected by the ear oximeter.

The Valsalva test gave a positive result in 12 cases of atrial septal defect proven at operation or by passage of a catheter across the defect; in 11 of them the result was positive at rest, and in the 12th case it was positive only after exercise. A positive result was obtained in 14 cases of probable atrial septal defect with catheter evidence of left-to-right shunt at atrial level. The test gave a negative result in 2 patients with partial anomalous pulmonary venous drainage but without atrial septal defect and in one patient with ventricular septal defect. In 2 patients with atrial septal defect and heart failure there was a negative finding with the Valsalva test, but both Muller's manoeuvre and elevation of the legs led to shunt reversal and fall in atrial oxygen saturation. K. G. Lowe

Hypertrophy of the Right Ventricular Outflow Tract. A Concept of the Electrocardiographic Findings in Atrial Septal Defect. S. G. BLOUNT, E. A. MUNYAN, and M. S. HOFFMAN. *Amer. J. Med.*, 22, 784-790, May, 1957.

In this communication evidence is presented to support the concept that the rSR' pattern with a total QRS time of 0.08 to 0.10 second seen in certain congenital and acquired cardiac lesions—but predominantly in atrial septal defect—is due to hypertrophy of the right ventricular outflow tract rather than to incomplete right bundle-branch block. Thus recordings from direct epicardial leads during operations on patients with atrial septal defect revealed that rSR' or rSR's' patterns were obtained only from the right ventricular outflow tract, while RS patterns were obtained from the mid-right ventricle. This observation correlated well with intracavitary electrocardiograms taken during catheter withdrawal. Further evidence in favour of this concept was the gradual transition of an obvious pattern of right ventricular hypertrophy in cases of valvular pulmonary stenosis to rSR' and finally rSR' patterns following surgical correction. The findings in patients after operation for relief of mitral stenosis and atrial septal defect were also in accord with the concept. As the authors point out, the acceptance of this concept does not mean that this pattern cannot be exactly duplicated by incomplete right bundle-branch block, as evidenced by a tracing reproduced in the paper. William A. R. Thomson

The Prognosis of Atrial Septal Defect. M. CAMPBELL, C. NEILL, and S. SUZMAN. *Brit. med. J.*, 1, 1375-1383, 1957.

The diagnosis and clinical course of atrial septal defect and the prognosis in this condition are discussed in this

paper, with reference to the findings in 100 patients, in two-thirds of whom the diagnosis was proved at cardiac catheterization or necropsy. The commonest errors in diagnosis were failure to detect mild pulmonary stenosis or to recognize that a large septal defect might be ventricular. Absence of wide splitting of the pulmonary second sound and evidence of left ventricular hypertrophy suggest ventricular septal defect. In 12 patients there was associated pulmonary stenosis and the physical signs were mainly those of this lesion, even when it was the minor lesion, although screening showed increased pulmonary arterial pulsation. About one-tenth of the patients had anomalous pulmonary venous drainage; none had a "cottage-loaf" heart.

Discussing the course and prognosis in age groups, the authors state that most infants with atrial septal defect survive, but occasionally a large defect causes death in an infant. Patients in the first two decades lead nearly normal lives, although they have large hearts, 95% doing well at age 20 and 85% at age 30. Only about half the patients seen at hospital are still well at age 40, and less than a quarter at age 50, but these figures for adults are drawn from a selected population. In early childhood the electrocardiogram usually shows the rSR' pattern. Generally, the heart is large and, having reached a position of equilibrium, remains about the same size until the age of 25 to 35. In the third decade some patients have increasing dyspnoea, up to one-third may lose ground seriously, and atrial fibrillation, pulmonary regurgitation, and reversal of the shunt appear. By the fourth decade most of the patients have become severely disabled (of 11 so disabled in the authors' series, 6 died). Disablement occurs most commonly from right heart failure without much pulmonary hypertension, and less commonly from pulmonary hypertension with reversal of the shunt, central cyanosis, and right heart failure or pulmonary arterial thrombosis. The onset of atrial fibrillation in these cases is serious. The average age at death in the present series was 39, the commonest cause being right heart failure or pulmonary infarction, but the authors cite cases and an additional case of their own in which active life was still possible in the fifth and sixth decades.

[This important paper should be consulted in the original.]
D. Emslie-Smith

Patent Ductus Arteriosus with Reversal of Flow. Clinical Study of Ten Children. R. C. ANDERSON, P. ADAMS, and R. L. VARCO. *Pediatrics*, 18, 410, 1956.

The clinical features in 10 cases of patent ductus arteriosus with reversal of flow are described. The patients, all children, had cyanosis, often greater in the toes, and dyspnoea on exertion had developed early in life. The electrocardiogram showed right ventricular hypertrophy in all cases. Cardiac catheterization indicated bidirectional shunt through the duct in 6 cases; in one case there was a reversed shunt flow only, while in 3 the data did not permit a definite conclusion to be reached.

Ligation of the patent ductus was successfully accomplished in one instance with significant clinical improvement. In 2 other cases ligation was followed by irreversible cardiac arrest.

The authors review 45 repeated cases, the majority of which were in adults. In 22 of these surgery was performed, with good results in 4. In their view surgical treatment is likely to be disappointing in adults, but may be more successful when carried out early in life.

Gerald R. Graham

Studies of Function in Anastomosis of the Superior Vena Cava with the Right Pulmonary Artery. T. M. DARBINIAN. *Sovetsk. Med.*, 28-32, April, 1957.

The author reviews the various attempts that have been made at anastomosis of the superior vena cava with the right pulmonary artery in the treatment of pulmonary stenosis.

He states that Meshalkin in 1956 carried out a series of such operations at the Vishnevskii Institute with good results. This method avoids one drawback of the Blalock-Potts operation, namely, that it does not lead to a "repeat circulation" through the pulmonary circuit; moreover, it can be employed in pulmonary and tricuspid atresia. The technique, which is simple and obviates intracardiac manipulation, is especially suitable in cases of Fallot's tetralogy and of atresia of the opening of the superior vena cava.

L. Firman-Edwards

Chest Pain in Patients with Isolated Pulmonic Stenosis. R. P. LASSER and G. GENKINS. *Circulation* (N.Y.), 15, 258, 1957.

At Mount Sinai Hospital, New York, the authors have observed 5 patients with congenital isolated pulmonary stenosis and typical angina pectoris or acute prolonged coronary insufficiency, but without frank evidence of myocardial necrosis. In all the patients the cardiac ischaemic pain was relieved by pulmonary valvotomy. In a discussion the authors state that the pain is due to right ventricular myocardial ischaemia, and that the factors that impair coronary circulation are: (1) very high right ventricular intracavitary systolic pressure and prolongation of right ventricular systole; (2) fixed low cardiac output; and (3) high right atrial and ventricular diastolic pressures which reduce the coronary arteriovenous pressure gradient.

K. G. Lowe

The Clinical Aspects of Arteriosclerosis. By SEYMOUR H. RINZLER, M.D., F.R.C.P. Pp. xiii and 339. Price £3 6s. Blackwell Scientific Publications: Oxford.

After a short introductory chapter, which summarizes the present state of knowledge concerning the pathogenesis of arteriosclerosis, this book consists of an account of the effect of this disease on the heart, brain, and peripheral vessels. The actual clinical aspects of the arteriosclerotic diseases are discussed very briefly and the chief value of the book is the excellent survey the author has made of the enormous number of books and papers that have been written on the subject, with particular reference to diagnosis and methods of treatment. The book is useful more as a review than as a practical manual for the diagnosis and treatment of arteriosclerosis.

Graham Hayward